



SEQUENCE LISTING

<110> Oncoimmunin, Inc.  
Komoriya, Akira  
Packard, Beverly

<120> COMPOSITIONS FOR THE DETECTION OF ENZYME ACTIVITY IN BIOLOGICAL  
SAMPLES AND METHODS OF USE THEREOF

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<140> US 09/874,350  
<141> 2001-06-04

<150> PCT/US98/00300  
<151> 1998-02-20

<150> PCT/US00/24882  
<151> 2000-09-11

<150> US 09/394,019  
<151> 1999-09-10

<150> US 08/802,981  
<151> 1997-02-20

<160> 221

<170> PatentIn version 3.3

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Gly Tyr

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Lys Asp Pro Xaa Gly Asp Glu Val Asp Gly Ile Asn Gly Xaa Pro Lys  
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Gly Tyr

<210> 18



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Lys Gly Tyr

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Tyr

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Tyr

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Gly Tyr

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Gly Tyr

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Gly Tyr

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Lys Asp Xaa Xaa Gly Asp Glu Val Asn Gly Ile Asn Gly Xaa Pro Lys  
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Gly Tyr

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Gly Tyr

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Lys Gly Tyr

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Gly Tyr

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Gly Tyr

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Gly Tyr

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Lys Gly Lys

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Lys Gly Tyr

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Lys Gly Tyr

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Lys Gly Tyr

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Pro Lys Gly Tyr  
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<223> X is epsilon aminocaproic acid

<400> 42

Lys Asp Xaa Xaa Gly Trp Trp Asp Glu Val Asp Gly Ile Asp Gly Xaa  
1 5 10 15



Pro Lys Gly Tyr  
20

<210> 43  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 43

Lys Asp Xaa Tyr Val Ala Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 44  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 44

Lys Asp Xaa Tyr Val Ala Asp Gly Ile Asn Pro Lys Gly Tyr  
1 5 10

<210> 45  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES

<222> (3)..(3)  
<223> X is Aib

<400> 45

Lys Asp Xaa Tyr Val Ala Asn Gly Ile Asn Pro Lys Gly Tyr  
1 5 10

<210> 46  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 46

Lys Asp Xaa Gly Tyr Val Ala Asp Gly Ile Asp Gly Pro Lys Gly Tyr  
1 5 10 15

<210> 47  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 47

Lys Asp Xaa Gly Tyr Val Ala Asp Gly Ile Asn Gly Pro Lys Gly Tyr  
1 5 10 15

<210> 48  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
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<223> X is Aib

<400> 48

Lys Asp Xaa Gly Tyr Val Ala Asn Gly Ile Asn Gly Pro Lys Gly Tyr  
1 5 10 15

<210> 49  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
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<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is epsilon aminocaproic acid

<400> 49

Lys Asp Xaa Xaa Gly Tyr Val Ala Asp Gly Ile Asp Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 50  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is epsilon aminocaproic acid

<400> 50

Lys Asp Xaa Xaa Gly Tyr Val Ala Asn Gly Ile Asp Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 51  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is epsilon aminocaproic acid

<400> 51

Lys Asp Xaa Xaa Gly Tyr Val Ala Asn Gly Ile Asn Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 52  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
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<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is epsilon aminocaproic acid

<400> 52

Lys Asp Xaa Xaa Gly Tyr Val Ala Asp Gly Ile Asn Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 53  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
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<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (6)..(6)  
<223> Y is D form

<220>  
<221> MOD\_RES  
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<223> X is epsilon aminocaproic acid

<400> 53

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	Ala	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 54  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(4)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 54

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	Ala	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 55  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid

<400> 55

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr  
1 5 10

<210> 56  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid

<400> 56

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr  
1 5 10

<210> 57  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid

<400> 57

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr  
1 5 10

<210> 58  
<211> 16  
<212> PRT

<213> Artificial

<220>

<223> Protease indicator

<220>

<221> misc\_feature

<222> (3)..(3)

<223> Xaa is alpha-aminoisobutyric acid

<400> 58

Lys	Asp	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 59

<211> 16

<212> PRT

<213> Artificial

<220>

<223> Protease indicator

<220>

<221> misc\_feature

<222> (3)..(3)

<223> Xaa is alpha-aminoisobutyric acid

<400> 59

Lys	Asp	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 60

<211> 16

<212> PRT

<213> Artificial

<220>

<223> Protease indicator

<220>

<221> misc\_feature

<222> (3)..(3)

<223> Xaa is alpha-aminoisobutyric acid

<400> 60

Lys	Asp	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly	Tyr
1				5					10					15	



<210> 61  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<400> 61

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly  
1 5 10 15

Tyr

<210> 62  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
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<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<400> 62

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly  
1 5 10 15

Tyr

<210> 63  
<211> 17  
<212> PRT  
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<220>  
<223> Protease indicator

<220>  
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<223> Xaa is alpha-aminoisobutyric acid

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<400> 63

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly
1				5					10					15	

Tyr

<210> 64  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
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<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<400> 64

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly
1				5					10					15	

Tyr

<210> 65  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
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<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<400> 65

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly  
1 5 10 15

Tyr

<210> 66  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
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<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<400> 66

Lys Asp Xaa Xaa Gly Asp Tyr Val His Asp Ala Pro Val Gly Pro Lys

1 5 10 15

Gly Tyr

<210> 67  
 <211> 17  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
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 <223> K is blocked with Fmoc

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (13)..(13)  
 <223> X is epsilon-aminocaproic acid

<400> 67

Lys Asp Pro Xaa Gly Leu Val Glu Ile Asp Asn Gly Xaa Pro Lys Gly  
 1 5 10 15

Tyr

<210> 68  
 <211> 17  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
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 <223> K is blocked with Fmoc

<220>

<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 68

Lys Asp Pro Xaa Gly Leu Val Glu Ile Glu Asn Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 69  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 69

Lys Asp Xaa Leu Val Glu Ile Asp Asn Gly Pro Lys Gly Tyr  
1 5 10

<210> 70  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 70

Lys Asp Xaa Gly Leu Val Glu Ile Asp Asn Gly Gly Pro Lys Gly Tyr

1 5 10 15

<210> 71  
 <211> 18  
 <212> PRT  
 <213> Artificial

<220>  
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<220>  
 <221> MOD\_RES  
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 <223> X is Aib

<220>  
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 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (14)..(14)  
 <223> X is epsilon-aminocaproic acid

<400> 71

Lys Asp Xaa Xaa Gly Leu Val Glu Ile Asp Asn Gly Gly Xaa Pro Lys  
 1 5 10 15

Gly Tyr

<210> 72  
 <211> 18  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
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 <222> (3)..(3)  
 <223> X is Aib

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is episilon-aminocaproic acid

<400> 72

Lys Asp Xaa Xaa Gly Leu Val Glu Ile Asn Asn Gly Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 73  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is episilon-aminocaproic acid

<400> 73

Lys Asp Pro Xaa Gly Ile Glu Thr Glu Ser Gly Val Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 74  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (12)..(12)  
<223> X is episilon-aminocaproic acid

<400> 74

Lys Asp Pro Xaa Gly Ile Glu Thr Asp Ser Gly Xaa Pro Lys Gly Tyr  
1 5 10 15

<210> 75  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> K is blocked with Fmoc

<220>  
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<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (12)..(12)  
<223> X is episilon-aminocaproic acid

<400> 75

Lys Asp Pro Xaa Gly Ile Glu Thr Glu Ser Gly Xaa Pro Lys Gly Tyr  
1 5 10 15

<210> 76  
<211> 17  
<212> PRT



<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> X is Aib

<400> 76

Lys Asp Xaa Gly Ile Glu Thr Asp Ser Gly Val Asp Asp Pro Lys Gly  
1 5 10 15

Tyr

<210> 77

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> X is Aib

<400> 77

Lys Asp Xaa Gly Ile Glu Thr Asn Ser Gly Val Asp Asp Pro Lys Gly  
1 5 10 15

Tyr

<210> 78

<211> 19

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)  
<223> X is Aib

<400> 78

Lys Asp Xaa Gly Gly Ile Glu Thr Asp Ser Gly Val Asp Asp Gly Pro  
1 5 10 15

Lys Gly Tyr

<210> 79  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 79

Lys Asp Xaa Gly Gly Ile Glu Thr Asn Ser Gly Val Gly Pro Lys Gly  
1 5 10 15

Tyr

<210> 80  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 80

Lys	Asp	Xaa	Xaa	Gly	Ile	Glu	Thr	Asp	Ser	Gly	Val	Xaa	Pro	Lys	Gly
1				5					10					15	

Tyr

<210> 81  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<222> (3)..(3)  
<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 81

Lys	Asp	Xaa	Xaa	Gly	Ile	Glu	Thr	Asn	Ser	Gly	Val	Xaa	Pro	Lys	Gly
1				5					10					15	

Tyr

<210> 82  
<211> 19  
<212> PRT  
<213> Artificial

<220>  
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<220>  
<221> MOD\_RES  
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<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (15)..(15)  
<223> X is episilon-aminocaproic acid

<400> 82

Lys Asp Xaa Xaa Gly Gly Ile Glu Thr Asp Ser Gly Val Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 83  
<211> 19  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (15)..(15)  
<223> X is episilon-aminocaproic acid

<400> 83

Lys Asp Xaa Xaa Gly Gly Ile Glu Thr Asn Ser Gly Val Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 84  
<211> 19  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 84

Lys Asp Xaa Gly Ser Glu Ser Met Asp Ser Gly Ile Ser Leu Asp Pro  
1 5 10 15

Lys Gly Tyr

<210> 85  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 85

Lys Asp Xaa Gly Gly Ser Glu Ser Met Asp Ser Gly Gly Pro Lys Gly  
1 5 10 15

Tyr

<210> 86  
<211> 19  
<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (15)..(15)

<223> X is episilon-aminocaproic acid

<400> 86

Lys	Asp	Xaa	Xaa	Gly	Gly	Ser	Glu	Ser	Met	Asp	Ser	Gly	Gly	Xaa	Pro
1				5					10					15	

Lys Gly Tyr

<210> 87

<211> 19

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (15)..(15)

<223> X is episilon-aminocaproic acid

<400> 87

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Ser Met Ser Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 88  
<211> 19  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (15)..(15)  
<223> X is episilon-aminocaproic acid

<400> 88

Lys Asp Xaa Xaa Gly Asp Val Val Cys Asp Ser Met Ser Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 89  
<211> 19  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<220>  
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<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (12)..(12)  
<223> M is D form

<220>  
<221> MOD\_RES  
<222> (15)..(15)  
<223> X is episilon-aminocaproic acid

<400> 89

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Ser Met Ser Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 90  
<211> 19  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
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<223> X is Aib

<220>  
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<222> (4)..(4)  
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<220>  
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<223> M is D form

<220>  
<221> MOD\_RES  
<222> (15)..(15)  
<223> X is episilon-aminocaproic acid

<400> 90



Lys Asp Xaa Xaa Gly Asp Val Val Cys Asp Ser Met Ser Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 91  
<211> 19  
<212> PRT  
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<220>  
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<220>  
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<223> M is D form

<220>  
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<400> 91

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Pro Met Ser Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 92  
<211> 18  
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<400> 92

Lys Asp Xaa Xaa Gly Glu Asp Val Val Cys Cys Ser Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 93  
<211> 18  
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<220>  
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<400> 93

Lys Asp Xaa Xaa Gly Glu Asp Val Val Cys Asp Ser Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 94  
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<220>  
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<400> 94

Lys Asp Xaa Xaa Gly Glu Asp Val Val Cys Cys Pro Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 95  
<211> 18  
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<220>  
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<220>  
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<222> (8)..(8)  
<223> V is D form

<220>  
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<400> 95

Lys	Asp	Xaa	Xaa	Gly	Glu	Asp	Val	Val	Cys	Asp	Pro	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 96  
<211> 19  
<212> PRT  
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<220>  
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<220>  
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<400> 96

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Ser Met Ser Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 97  
<211> 19  
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<400> 97

Lys Asp Xaa Xaa Gly Asp Val Val Cys Asp Ser Met Ser Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr

<210> 98  
 <211> 19  
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<400> 98

Lys	Asp	Xaa	Xaa	Gly	Asp	Val	Val	Cys	Cys	Pro	Met	Ser	Gly	Xaa	Pro
1				5				10						15	

Lys Gly Tyr

<210> 99  
 <211> 18  
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<220>  
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<400> 99

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Ser Met Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 100  
<211> 18  
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<220>  
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<220>  
<221> MOD\_RES  
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<400> 100

Lys Asp Xaa Xaa Gly Asp Val Val Cys Asp Ser Met Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 101  
 <211> 16  
 <212> PRT  
 <213> Artificial

<220>  
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 <222> (4)..(4)  
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<220>  
 <221> MOD\_RES  
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<400> 101

Lys	Asp	Xaa	Xaa	Gly	Val	Cys	Cys	Ser	Met	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5				10						15	

<210> 102  
 <211> 16  
 <212> PRT  
 <213> Artificial

<220>  
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 <223> X is Aib

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 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (12)..(12)  
 <223> X is epsilon-aminocaproic acid



<400> 102

Lys Asp Xaa Xaa Gly Val Cys Asp Ser Met Gly Xaa Pro Lys Gly Tyr  
1 5 10 15

<210> 103

<211> 19

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is Aib

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<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 103

Lys Asp Xaa Xaa Gly Asp Glu Met Glu Glu Cys Ser Gln His Leu Pro  
1 5 10 15

Lys Gly Tyr

<210> 104

<211> 19

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 104

Lys	Asp	Xaa	Xaa	Gly	Asp	Glu	Met	Glu	Glu	Cys	Pro	Gln	His	Leu	Pro
1				5					10					15	

Lys Gly Tyr

<210> 105  
 <211> 19  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
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<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<400> 105

Lys	Asp	Xaa	Xaa	Gly	Asp	Glu	Met	Glu	Glu	Asp	Ser	Gln	His	Leu	Pro
1				5					10					15	

Lys Gly Tyr

<210> 106  
 <211> 18  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> Synthetic peptide substrate

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 <223> X is Aib

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<400> 106

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Cys	Ser	Gln	His	Leu	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 107

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 107

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Cys	Pro	Gln	His	Leu	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 108

<211> 18

<212> PRT

<213> Artificial

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<223> Synthetic peptide substrate

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<223> X is Aib

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<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 108

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Asp	Ser	Gln	His	Leu	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 109

<211> 19

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<223> Synthetic peptide substrate

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<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 109

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Cys	Ser	Gln	His	Leu	Gly	Pro
1				5					10					15	

Lys Gly Tyr

<210> 110

<211> 19

<212> PRT

<213> Artificial

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<400> 110

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Cys	Pro	Gln	His	Leu	Gly	Pro
1				5					10					15	

Lys Gly Tyr

<210> 111  
<211> 19  
<212> PRT  
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<220>  
<221> MOD\_RES  
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<223> X is epsilon aminocaproic acid

<400> 111

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Asp	Ser	Gln	His	Leu	Gly	Pro
1				5					10					15	

Lys Gly Tyr

<210> 112  
<211> 20  
<212> PRT  
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<220>  
 <221> MOD\_RES  
 <222> (16)..(16)  
 <223> X is episilon-aminocaproic acid

<400> 112

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Cys Ser Gln His Leu Gly Xaa  
 1 5 10 15

Pro Lys Gly Tyr  
 20

<210> 113  
 <211> 20  
 <212> PRT  
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<220>  
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<220>  
 <221> MOD\_RES  
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<400> 113

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Cys Pro Gln His Leu Gly Xaa  
 1 5 10 15

Pro Lys Gly Tyr  
 20

<210> 114

<211> 20  
<212> PRT  
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<220>  
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<223> X is episilon-aminocaproic acid

<400> 114

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Asp	Ser	Gln	His	Leu	Gly	Xaa
1				5				10						15	

Pro	Lys	Gly	Tyr
			20

<210> 115  
<211> 17  
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<223> X is Aib

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<220>  
<221> MOD\_RES  
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<223> X is episilon-aminocaproic acid

<400> 115

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 116

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<220>

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<223> M is D form

<220>

<221> MOD\_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 116

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 117

<211> 17

<212> PRT

<213> Artificial

<220>



<223> Synthetic peptide substrate

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<220>

<221> MOD\_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 117

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 118

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 118

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 119  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
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<220>  
<221> MOD\_RES  
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<400> 119

Lys	Asp	Xaa	Xaa	Gly	Val	Met	Thr	Gly	Arg	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5				10					15		

<210> 120  
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<220>

<221> MOD\_RES  
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 <223> X is episilon-aminocaproic acid

<400> 120

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Gly Gly Xaa Pro Lys Gly  
 1 5 10 15

Tyr

<210> 121  
 <211> 17  
 <212> PRT  
 <213> Artificial

<220>  
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<220>  
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 <223> X is Aib

<220>  
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 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> M is D form

<220>  
 <221> MOD\_RES  
 <222> (13)..(13)  
 <223> X is episilon-aminocaproic acid

<400> 121

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Gly Gly Xaa Pro Lys Gly  
 1 5 10 15

Tyr

<210> 122  
 <211> 8  
 <212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<223> K is blocked with Fmoc

<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 122

Lys Asp Pro Xaa Thr Gly Arg Thr

1

5

<210> 123

<211> 11

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> D is blocked with Fmoc

<400> 123

Asp Pro Thr Gly Arg Thr Gly Pro Lys Gly Tyr

1

5

10

<210> 124

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (11)..(11)  
<223> X is episilon-aminocaproic acid

<400> 124

Lys Asp Pro Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly Tyr  
1 5 10 15

<210> 125  
<211> 13  
<212> PRT  
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<220>  
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<220>  
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<222> (9)..(9)  
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<400> 125

Lys Asp Pro Thr Gly Arg Thr Gly Xaa Pro Lys Gly Tyr  
1 5 10

<210> 126  
<211> 15  
<212> PRT  
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<220>  
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<223> K is blocked with Fmoc

<220>  
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<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES  
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<400> 126

Lys Asp Pro Xaa Gly Thr Gly Arg Thr Gly Xaa Pro Lys Gly Tyr  
1 5 10 15

<210> 127  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

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<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<400> 127

Lys Asp Pro Xaa Gly Thr Gly Arg Thr Gly Pro Lys Gly Tyr  
1 5 10

<210> 128  
<211> 13  
<212> PRT  
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<220>  
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<220>  
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<223> K is blocked with Fmoc

<400> 128

Lys Asp Pro Gly Thr Gly Arg Thr Gly Pro Lys Gly Tyr  
1 5 10

<210> 129

<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (10)..(10)  
<223> X is episilon-aminocaproic acid

<400> 129

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Xaa Pro Lys Gly Tyr  
1 5 10

<210> 130  
<211> 13  
<212> PRT  
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<220>  
<223> Synthetic peptide substrate

<220>  
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<400> 130

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Pro Lys Gly Tyr  
1 5 10

<210> 131  
<211> 13  
<212> PRT  
<213> Artificial

<220>  
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<220>  
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<223> X is 8-aminobutyric acid

<400> 131

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Pro Lys Gly Tyr  
1 5 10

<210> 132

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<223> X is Aib

<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 132

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Val Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 133

<211> 17

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<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<222> (3)..(3)

<223> X is Aib



<220>  
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<220>  
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<222> (7)..(7)  
<223> M is D form

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 133

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Val Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 134  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 134

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Ala Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 135  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
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<220>  
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<223> X is Aib

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<222> (7)..(7)  
<223> M is D form

<220>  
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<223> X is episilon-aminocaproic acid

<400> 135

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Ala Gly Xaa Pro Lys Gly  
1 5 10 15

Tyr

<210> 136  
<211> 26  
<212> PRT  
<213> Artificial

<220>  
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<220>  
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<223> K is blocked with Fmoc

<220>  
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 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> misc\_feature  
 <222> (16)..(16)  
 <223> Xaa can be any naturally occurring amino acid

<220>  
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 <223> X is epsilon aminocaproic acid

<400> 136

Lys	Asp	Pro	Xaa	Gly	Ser	Glu	Val	Lys	Leu	Asp	Ala	Glu	Phe	Gly	Xaa
1				5				10						15	

Pro	Lys	Gly	Tyr	Gly	Xaa	Pro	Lys	Gly	Tyr
			20					25	

<210> 137  
 <211> 20  
 <212> PRT  
 <213> Artificial

<220>  
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<220>  
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 <223> K is blocked with Fmoc

<220>  
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 <223> X is epsilon aminocaproic acid

<220>  
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 <222> (7)..(7)  
 <223> E is D form

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 <222> (10)..(10)  
 <223> L is D form

<220>  
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<222> (14)..(14)  
<223> F is D form

<220>  
<221> MOD\_RES  
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<223> X is episilon-aminocaproic acid

<400> 137

Lys Asp Pro Xaa Gly Ser Glu Val Lys Leu Asp Ala Glu Phe Gly Xaa  
1 5 10 15

Pro Lys Gly Tyr  
20

<210> 138  
<211> 20  
<212> PRT  
<213> Artificial

<220>  
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<220>  
<221> MOD\_RES  
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<223> E is D form

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<222> (10)..(10)  
<223> L is D form

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> F is D form

<220>  
<221> MOD\_RES  
<222> (16)..(16)  
<223> X is episilon-aminocaproic acid

<400> 138

Lys Asp Pro Xaa Gly Ser Glu Val Lys Leu Asp Ala Glu Phe Gly Xaa  
1 5 10 15

Pro Lys Gly Tyr  
20

<210> 139

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<220>

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<223> X is Aib

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (16)..(16)

<223> X is epsilon-aminocaproic acid

<400> 139

Lys Asp Xaa Xaa Gly Ser Glu Val Asn Leu Asp Ala Glu Phe Gly Xaa  
1 5 10 15

Pro Lys Asp Asp Tyr  
20

<210> 140

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

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<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (16)..(16)

<223> X is episilon-aminocaproic acid

<400> 140

Lys Asp Xaa Xaa Gly Ser Glu Val Lys Leu Asp Ala Glu Phe Gly Xaa  
1 5 10 15

Pro Lys Asp Asp Tyr  
20

<210> 141

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (16)..(16)

<223> X is episilon-aminocaproic acid

<400> 141

Lys Asp Xaa Xaa Gly Ser Glu Val Lys Met Asp Ala Glu Phe Gly Xaa  
1 5 10 15

Pro`Lys Asp Asp Tyr  
20

<210> 142  
<211> 21  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RS  
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<223> X is Aib

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<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RS  
<222> (16)..(16)  
<223> X is episilon-aminocaproic acid

<400> 142

Lys	Asp	Xaa	Xaa	Gly	Ser	Glu	Val	Lys	Met	Asp	Asp	Glu	Phe	Gly	Xaa
1			5					10						15	

Pro Lys Asp Asp Tyr  
20

<210> 143  
<211> 21  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
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<223> X is Aib

<220>  
<221> MOD\_RES

<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (16)..(16)  
<223> X is epsilon-aminocaproic acid

<400> 143

Lys Asp Xaa Xaa Gly Ser Glu Val Asn Leu Asp Asp Glu Phe Gly Xaa  
1 5 10 15

Pro Lys Asp Asp Tyr  
20

<210> 144  
<211> 23  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (18)..(18)  
<223> X is epsilon-aminocaproic acid

<400> 144

Lys Asp Xaa Xaa Gly Gly Val Val Ile Ala Thr Val Ile Val Ile Thr  
1 5 10 15

Gly Xaa Pro Lys Asp Asp Tyr  
20

<210> 145  
<211> 24  
<212> PRT  
<213> Artificial



<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
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<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
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<223> X is episilon-aminocaproic acid

<400> 145

Lys Asp Xaa Xaa Gly Tyr Gly Val Val Ile Ala Thr Val Ile Val Ile  
1 5 10 15

Thr Gly Xaa Pro Lys Asp Asp Tyr  
20

<210> 146  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> X is Aib

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<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 146

Lys Asp Xaa Xaa Gly Val Ile Ala Thr Val Ile Gly Xaa Pro Lys Asp  
1 5 10 15

Asp Tyr

<210> 147  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
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<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 147

Lys Asp Xaa Xaa Asx Tyr Gly Val Val Ile Ala Gly Xaa Pro Lys Asp  
1 5 10 15

Asp Tyr

<210> 148  
<211> 15  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

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<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

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 <222> (4)..(5)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (12)..(13)  
 <223> X is epsilon-aminocaproic acid

<400> 148

Lys	Asp	Xaa	Xaa	Xaa	Gln	Gln	Leu	Leu	His	Asn	Xaa	Xaa	Pro	Lys
1				5					10					15

<210> 149  
 <211> 15  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> X is Aib

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (13)..(13)  
 <223> X is epsilon-aminocaproic acid

<400> 149

Lys	Asp	Xaa	Xaa	Gly	Gln	Gln	Leu	Leu	His	Asn	Gly	Xaa	Pro	Lys
1				5					10					15

<210> 150  
 <211> 13  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>

<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 150

Lys Asp Xaa Gly Gln Gln Leu Leu His Asn Gly Pro Lys  
1 5 10

<210> 151  
<211> 11  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> X is Aib

<400> 151

Lys Asp Xaa Gln Gln Leu Leu His Asn Pro Lys  
1 5 10

<210> 152  
<211> 15  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> X is Aib

<220>  
<221> MOD\_RES  
<222> (4)..(5)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (12)..(13)  
<223> X is episilon-aminocaproic acid

<400> 152

Lys Asp Xaa Xaa Xaa Ser Ile Gln Tyr Thr Tyr Xaa Xaa Pro Lys  
 1 5 10 15

<210> 153  
 <211> 15  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> X is Aib

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (13)..(13)  
 <223> X is epsilon-aminocaproic acid

<400> 153

Lys Asp Xaa Xaa Gly Ser Ile Gln Tyr Thr Tyr Gly Xaa Pro Lys  
 1 5 10 15

<210> 154  
 <211> 13  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
 <221> MOD\_RES  
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 <223> X is Aib

<400> 154

Lys Asp Xaa Gly Ser Ile Gln Tyr Thr Tyr Gly Pro Lys  
 1 5 10

<210> 155  
 <211> 11

<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 155

Lys Asp Xaa Ser Ile Gln Tyr Thr Tyr Pro Lys  
1 5 10

<210> 156  
<211> 15  
<212> PRT  
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<220>  
<223> Synthetic peptide substrate

<220>  
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<223> X is Aib

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<222> (4)..(5)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (12)..(13)  
<223> X is epsilon-aminocaproic acid

<400> 156

Lys Asp Xaa Xaa Xaa Ser Ser Gln Tyr Ser Asn Xaa Xaa Pro Lys  
1 5 10 15

<210> 157  
<211> 15  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> X is Aib

<220>  
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<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 157

Lys Asp Xaa Xaa Gly Ser Ser Gln Tyr Ser Asn Gly Xaa Pro Lys  
1 5 10 15

<210> 158  
<211> 13  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 158

Lys Asp Xaa Gly Ser Ser Gln Tyr Ser Asn Gly Pro Lys  
1 5 10

<210> 159  
<211> 11  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 159

Lys Asp Xaa Ser Ser Gln Tyr Ser Asn Pro Lys  
1 5 10

<210> 160

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(5)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (12)..(13)

<223> X is episilon-aminocaproic acid

<400> 160

Lys Asp Xaa Xaa Xaa Ser Ser Ile Tyr Ser Gln Xaa Xaa Pro Lys  
1 5 10 15

<210> 161

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>



<221> MOD\_RES  
<222> (13)..(13)  
<223> X is episilon-aminocaproic acid

<400> 161

Lys Asp Xaa Xaa Gly Ser Ser Ile Tyr Ser Gln Gly Xaa Pro Lys  
1 5 10 15

<210> 162  
<211> 13  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 162

Lys Asp Xaa Gly Ser Ser Ile Tyr Ser Gln Gly Pro Lys  
1 5 10

<210> 163  
<211> 11  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> X is Aib

<400> 163

Lys Asp Xaa Ser Ser Ile Tyr Ser Gln Pro Lys  
1 5 10

<210> 164  
<211> 20  
<212> PRT  
<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (16)..(16)

<223> X is episilon-aminocaproic acid

<400> 164

Lys Asp Pro Xaa Gly Ser Glu Val Asn Leu Asp Ala Glu Phe Gly Xaa  
1 5 10 15

Pro Lys Gly Tyr  
20

<210> 165

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (14)..(14)

<223> X is episilon-aminocaproic acid

<400> 165

Lys Asp Pro Xaa Gly Leu Glu His Asp Gly Ile Asn Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 166  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is epsilon-aminocaproic acid

<400> 166

Lys	Asp	Pro	Xaa	Gly	Leu	Glu	Thr	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 167  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmco

<220>  
<221> MOD\_RES

<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is epsilon-aminocaproic acid

<400> 167

Lys Asp Pro Xaa Gly Trp Glu His Asp Gly Ile Asn Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 168  
<211> 15  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (11)..(11)  
<223> X is epsilon-aminocaproic acid

<400> 168

Lys Asp Pro Xaa Gly Tyr Val His Asp Gly Xaa Pro Lys Gly Tyr  
1 5 10 15

<210> 169  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is episilon-aminocaproic acid

<400> 169

Lys Asp Pro Xaa Gly Tyr Val His Asp Gly Ile Asn Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 170  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon aminocaproic acid (Ahx)

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon aminocaproic acid (Ahx)

<400> 170

Lys Asp Pro Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 171

<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon aminocaproic acid (Ahx)

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon aminocaproic acid (Ahx)

<400> 171

Lys Asp Pro Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 172  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (12)..(12)  
<223> Xaa is episilon aminocaproic acid (Ahx)

<400> 172

Lys Asp Pro Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys Gly Tyr  
1 5 10 15

<210> 173  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
 <221> misc\_feature  
 <222> (4)..(4)  
 <223> Xaa is episilon aminocaproic acid (Ahx)

<220>  
 <221> misc\_feature  
 <222> (12)..(12)  
 <223> Xaa is episilon aminocaproic acid (Ahx)

<400> 173

Lys	Asp	Pro	Xaa	Gly	Tyr	Val	His	Asp	Ala	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 174  
 <211> 16  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)  
 <223> K is blocked with Fmoc

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> X is epsilon aminocaproic acid

<220>  
 <221> MOD\_RES  
 <222> (12)..(12)  
 <223> X is epsilon-aminocaproic acid

<400> 174

Lys	Asp	Pro	Xaa	Gly	Ile	Glu	Pro	Asp	Ser	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 175  
 <211> 18  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is episilon-aminocaproic acid

<400> 175

Lys Asp Pro Xaa Gly Pro Leu Gly Ile Ala Gly Ile Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 176  
<211> 19  
<212> PRT  
<213> Artificial

<220>  
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<220>  
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<220>  
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<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (15)..(15)  
<223> X is episilon-aminocaproic acid

<400> 176

Lys Asp Pro Xaa Gly Ser Gln Asn Tyr Pro Ile Val Gln Gly Xaa Pro  
1 5 10 15

Lys Gly Tyr



<210> 177  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> K is blocked with Fa

<220>  
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<223> X is epsilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is epsilon-aminocaproic acid

<400> 177

Lys Asp Pro Xaa Gly Glu Asp Val Val Cys Cys Ser Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 178  
<211> 10  
<212> PRT  
<213> Artificial

<220>  
<223> Peptide spacer

<400> 178

Asp Gly Ser Gly Gly Gly Glu Asp Glu Lys  
1 5 10

<210> 179  
<211> 7  
<212> PRT  
<213> Artificial

<220>  
<223> peptide spacer

<400> 179

Lys Glu Asp Gly Gly Asp Lys  
1 5

<210> 180  
<211> 8  
<212> PRT  
<213> Artificial

<220>  
<223> Peptide spacer

<220>  
<221> Artificial  
<222> (1)..(8)  
<223> Spacer

<400> 180

Asp Gly Ser Gly Glu Asp Glu Lys  
1 5

<210> 181  
<211> 9  
<212> PRT  
<213> Artificial

<220>  
<223> Peptide spacer

<220>  
<221> Artificial  
<222> (1)..(9)  
<223> Spacer

<400> 181

Lys Glu Asp Glu Gly Ser Gly Asp Lys  
1 5

<210> 182  
<211> 8  
<212> PRT  
<213> Artificial

<220>  
<223> protease inhibitor

<400> 182

Asp Val Val Cys Cys Ser Met Ser  
1 5

<210> 183

<211> 7

<212> PRT

<213> artificial

<220>

<223> protease inhibitor

<220>

<221> MOD\_RES

<222> (6)..(6)

<223> d amino acid

<400> 183

Asp Val Val Cys Pro Met Ser  
1 5

<210> 184

<211> 9

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (5)..(5)

<223> X is norleucine

<400> 184

Asp Ala Ile Pro Xaa Ser Ile Pro Cys  
1 5

<210> 185

<211> 11

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (5)..(5)  
<223> X is norleucine

<400> 185

Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr  
1 5 10

<210> 186  
<211> 11  
<212> PRT  
<213> Artificial

<220>  
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<220>  
<221> misc\_feature  
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<220>  
<221> MOD\_RES  
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<223> D is derivatized with fluorophore

<220>  
<221> MOD\_RES  
<222> (9)..(9)  
<223> K is derivatized with fluorophore

<400> 186

Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 187  
<211> 12  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> misc\_feature  
<223> Artificial = synthetic protease indicator

<220>  
<221> MOD\_RES  
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<223> P is derivatized with fluorophore

<220>

<221> MOD\_RES

<222> (10)..(10)

<223> K is derivatized with fluorophore

<400> 187

Pro Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 188

<211> 12

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc\_feature

<223> Artificial sequence = synthetic protease indicator

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<221> MOD\_RES

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<223> K is blocked with Fmoc

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> K is derivatized with fluorophore

<220>

<221> MOD\_RES

<222> (6)..(6)

<223> X is norleucine (Nlu)

<220>

<221> MOD\_RES

<222> (10)..(10)

<223> K is derivatized with fluorophore

<400> 188

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr  
1 5 10

<210> 189

<211> 12

<212> PRT

<213> Artificial

<220>  
 <223> Synthetic peptide substrate

<220>  
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 <223> Artificial sequence = synthetic protease indicator

<220>  
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 <223> K is derivatized with fluorophore

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> X is norleucine (Nlu)

<220>  
 <221> MOD\_RES  
 <222> (10)..(10)  
 <223> K is derivatized with fluorophore

<400> 189

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr  
 1                      5                      10

<210> 190  
 <211> 11  
 <212> PRT  
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<220>  
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<220>  
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<220>  
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<220>  
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 <222> (5)..(5)  
 <223> X is norleucine (Nlu)

<220>  
 <221> MOD\_RES  
 <222> (9)..(9)

<223> K is derivatized with fluorophore

<400> 190

Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr  
1 5 10

<210> 191

<211> 14

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc\_feature

<223> ARTIFICIAL = synthetic protease indicator

<220>

<221> MOD\_RES

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<223> K is blocked with Fmoc

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> K is derivatized with fluorophore

<220>

<221> MOD\_RES

<222> (12)..(12)

<223> K is derivatized with fluorophore

<400> 191

Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 192

<211> 14

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc\_feature

<223> Artificial = synthetic protease indicator

<220>

<221> misc\_feature  
<222> (1)..(1)  
<223> K is derivatized with fluorophore

<220>  
<221> misc\_feature  
<222> (12)..(12)  
<223> K is derivatized with fluorophore

<400> 192

Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 193  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

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<220>  
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<223> K is derivatized with fluroophore

<220>  
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<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (12)..(12)  
<223> K is derivatized with fluroophore

<400> 193

Lys Asp Asx Asp Glu Val Asn Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 194  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate



<220>  
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<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>  
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<220>  
<221> misc\_feature  
<222> (12)..(12)  
<223> K is derivatized with fluorophore

<400> 194

Lys Asp Asx Asp Glu Val Asn Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 195  
<211> 13  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> misc\_feature  
<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>  
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<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (11)..(11)  
<223> K is derivatized with fluorophore

<400> 195

Lys Asp Asx Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 196  
<211> 13  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> misc\_feature  
<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is derivatized with fluorophore

<220>  
<221> MOD\_RES  
<222> (11)..(11)  
<223> K is derivatized with fluorophore

<400> 196

Lys Asp Tyr Asx Ala Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 197  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> misc\_feature  
<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is derivatized with fluorophore

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> K is derivatized with fluorophore

<400> 197

Lys Asp Asx Gly Asp Glu Val Asp Gly Ile Asp Gly Pro Lys Gly Tyr  
1 5 10 15

<210> 198  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
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<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>  
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<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
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<222> (1)..(1)  
<223> K is derivatized with fluorophore

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is episilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (14)..(14)  
<223> X is episilon aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (16)..(16)  
<223> K is derivatized with fluorophore

<400> 198

Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 199  
<211> 18  
<212> PRT  
<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc\_feature

<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> K is derivatized with benzyloxycarbonyl group

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> K is derivatized with fluorophore

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is episilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (14)..(14)

<223> X is episilon aminocaproic acid

<220>

<221> MOD\_RES

<222> (16)..(16)

<223> K is derivatized with fluorophore

<400> 199

Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 200

<211> 13

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc\_feature

<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>

<221> MOD\_RES  
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<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is derivatized with fluorophore

<220>  
<221> MOD\_RES  
<222> (11)..(11)  
<223> K is derivatized with fluorophore

<400> 200

Lys Asp Tyr Asx Ala Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 201  
<211> 13  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> misc\_feature  
<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is derivatized with fluorophore

<220>  
<221> MOD\_RES  
<222> (11)..(11)  
<223> K is derivatized with fluorophore

<400> 201

Lys Asp Asx Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr  
1 5 10

<210> 202  
<211> 12  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> misc\_feature  
<223> Artificial/Unknown = synthetic protease indicator

<220>  
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<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is derivatized with fluorophore

<220>  
<221> MOD\_RES  
<222> (6)..(6)  
<223> X is norleucine (Nlu)

<220>  
<221> MOD\_RES  
<222> (10)..(10)  
<223> K is derivatized with fluorophore

<400> 202

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr  
1 5 10

<210> 203  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 203

Lys Asp Pro Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 204  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 204

Lys Asp Pro Xaa Gly Ile Glu Thr Asp Ser Gly Val Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 205  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 205

Lys Asp Pro Xaa Gly Leu Val Glu Ile Asp Asn Gly Gly Xaa Pro Lys

1 5 10 15

Gly Tyr

<210> 206  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 206

Lys Asp Pro Xaa Gly Leu Glu His Asp Gly Ile Asn Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 207  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 207



Lys Asp Pro Xaa Gly Trp Glu His Asp Gly Ile Asn Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 208  
<211> 7  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<400> 208

Ile Glu Thr Asp Ser Gly Val  
1 5

<210> 209  
<211> 9  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> X is D form of tetrahydroisoquinoline-3-carboxylic acid

<400> 209

Ser Glu Val Asn Leu Asp Ala Glu Phe  
1 5

<210> 210  
<211> 7  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> Artificial  
<222> (1)..(7)  
<223> Artificial protease substrate

<400> 210

Tyr Val His Asp Ala Pro Val  
1 5

<210> 211

<211> 4

<212> PRT

<213> Artificial

<220>

<223> domaine of protease indicator

<400> 211

Gly Gly Gly Gly  
1

<210> 212

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> X is episilon-aminocaproic acid

<220>

<221> MOD\_RES

<222> (14)..(14)

<223> X is episilon-aminocaproic acid

<400> 212

Lys Asp Pro Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 213

<211> 15  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmoc

<220>  
<221> MOD\_RES  
<222> (4)..(4)  
<223> X is episilon-aminocaproic acid

<220>  
<221> MOD\_RES  
<222> (15)..(15)  
<223> K is blocked with amide

<400> 213

Lys	Asp	Pro	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Lys	Gly	Tyr
1				5					10				15	

<210> 214  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide substrate

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> K is blocked with Fmoc

<400> 214

Lys	Asp	Pro	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Lys	Pro	Lys	Gly	Tyr
1				5					10				15		

<210> 215  
<211> 21  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (16)..(16)  
<223> Xaa is episilon-aminocaproic acid

<400> 215

Lys	Asp	Asx	Xaa	Gly	Ser	Glu	Val	Asn	Leu	Asp	Ala	Glu	Phe	Gly	Xaa
1				5				10						15	

Pro Lys Asp Asp Tyr  
20

<210> 216  
<211> 7  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<400> 216

Tyr	Val	His	Asp	Ala	Pro	Val
1			5			

<210> 217  
<211> 7  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (1)..(1)  
<223> Y is "D" form amino acid

<400> 217

Tyr	Val	His	Asp	Ala	Pro	Val
1			5			

<210> 218  
<211> 14  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<400> 218

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr  
1 5 10

<210> 219  
<211> 16  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<400> 219

Lys Asp Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly Tyr  
1 5 10 15

<210> 220  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<220>  
<221> misc\_feature

<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 220

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr

<210> 221  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Protease indicator

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<220>  
<221> misc\_feature  
<222> (4)..(4)  
<223> Xaa is episilon-aminocaproic acid

<220>  
<221> misc\_feature  
<222> (6)..(6)  
<223> Xaa is D-tyrosine

<220>  
<221> misc\_feature  
<222> (14)..(14)  
<223> Xaa is episilon-aminocaproic acid

<400> 221

Lys Asp Xaa Xaa Gly Xaa Val His Asp Ala Pro Val Gly Xaa Pro Lys  
1 5 10 15

Gly Tyr